

WHAT IS CLAIMED IS:

1 1. A method of sending an IP-based data packet
2 across a radio link, said data packet having a packet
3 header including an IP identification header field,
4 sequence number header field, and time stamp header
5 field, said method comprising the steps of:

6 compressing said packet header;

7 adjusting an IP identification within said IP
8 identification header field of said packet header to
9 conform to a stream-sequential identification format;

10 synchronizing said data packet to a radio frame
11 based on a time stamp within said time stamp header field
12 of said packet header and a timing of said radio frame;
13 and

14 transmitting said data packet with said radio
15 frame over said radio link.

1 2. The method according to claim 1, wherein said
2 data packet is transmitted without information related to
3 changes in said IP identification, sequence number, or
4 time stamp.

Patent Application
Docket No. 34645-502USPT

1 3. The method according to claim 1, further
2 comprising the step of:

3 transmitting static information regarding said
4 data packet over said radio link.

1 4. The method according to claim 1, wherein said
2 packet header is compressed according to a ROCCO
3 compression protocol.

1 5. The method according to claim 1, further
2 comprising the step of:

3 reconstructing a sequence number within said
4 sequence number header field of said packet header by
5 incrementing a previous sequence number and assigning
6 said incremented sequence number to said data packet.

1 6. The method according to claim 5, further
2 comprising the step of:

3 reconstructing said IP identification within
4 said IP identification header field of said packet header
5 from said reconstructed sequence number.

1 7. The method according to claim 6, further
2 comprising the step of:

3 reconstructing said time stamp within said time
4 stamp header field of said packet header from said timing
5 of said radio frame.

1 8. The method according to claim 7, further
2 comprising the step of:

3 decompressing said packet header and forwarding
4 said data packet to a next destination.

1 9. A telecommunication system for sending an IP-
2 based data packet across a radio link, said data packet
3 having a packet header including an IP identification
4 header field, sequence number header field, and time
5 stamp header field, said system comprising:

6 a compressor for compressing said packet
7 header;

8 an IP identification processor for adjusting an
9 IP identification within said IP identification header
10 field to conform to a stream-sequential format;

11 a synchronizer for synchronizing said data
12 packet to a radio frame based on a time stamp within said

Patent Application
Docket No. 34645-502USPT

13 time stamp header field and a timing of said radio frame;
14 and

15 a transmitter for transmitting said data packet
16 with said radio frame over said radio link.

1 10. The telecommunication system according to
2 claim 9, wherein said data packet is transmitted without
3 information related to changes in said IP identification,
4 sequence number, or time stamp.

1 11. The telecommunication system according to
2 claim 9, further comprising a static information
3 processor for sending static information regarding said
4 data packet over said radio link.

1 12. The telecommunication system according to
2 claim 9, wherein said packet header is compressed
3 according to a ROCCO compression protocol.

1 13. The telecommunication system according to
2 claim 9, further comprising a counter for reconstructing
3 a sequence number within said sequence number header
4 field by incrementing a previous sequence number and

Patent Application
Docket No. 34645-502USPT

5 assigning said incremented sequence number to said data
6 packet.

1 14. The telecommunication system according to
2 claim 13, further comprising a second IP identification
3 processor for reconstructing said IP identification
4 within said IP identification header field from said
5 reconstructed sequence number.

1 15. The telecommunication system according to
2 claim 14, further comprising a time stamp processor for
3 reconstructing said time stamp within said time stamp
4 header field from said timing of said radio frame.

1 16. The telecommunication system according to
2 claim 15, further comprising a decompressor for
3 decompressing said packet header and a transmitter for
4 forwarding said data packet to a next destination.